

CLAIMS

1. A skeletal muscle protecting agent comprising a compound having inhibitory activity against squalene synthase or a salt thereof, or a prodrug thereof.

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2. The agent according to claim 1, which is a skeletal muscle protecting agent which protects skeletal muscle from cell disorder.

3. The agent according to claim 1, which is a skeletal muscle protecting agent which protects skeletal muscle from cytotoxicity of other medicines.

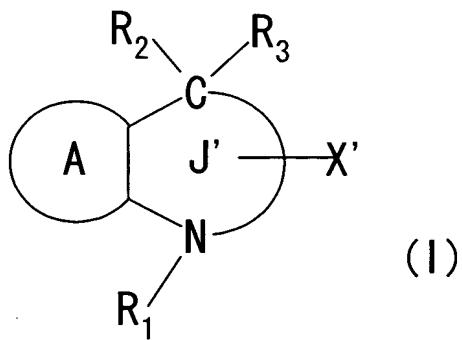
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4. The agent according to claim 3, wherein the other medicine is an HMG-CoA reductase inhibitor.

5. The agent according to claim 1, which is a preventive and/or therapeutic agent for myalgia or rhabdomyolysis.

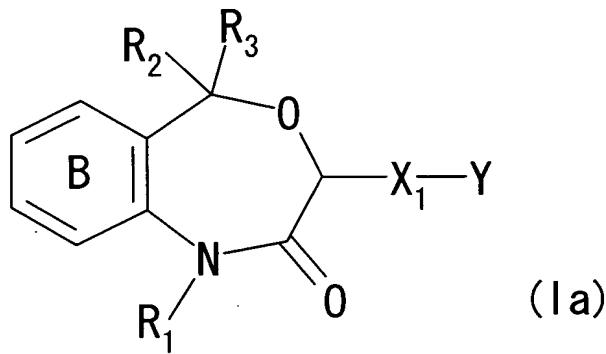
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6. The agent according to claim 1, wherein the compound having inhibitory activity against squalene synthase is a compound represented by the formula:



wherein R_1 is a hydrogen atom or an optionally substituted hydrocarbon group, R_2 and R_3 are the same or different and a hydrogen atom, an optionally substituted hydrocarbon group or an optionally substituted heterocyclic group, X' is a substituent comprising an optionally esterified carboxyl group, an optionally substituted carbamoyl group, an optionally substituted hydroxy group, an optionally substituted amino group or an optionally substituted heterocyclic residue having a hydrogen atom which can be deprotonated, Ring A is an optionally substituted benzene ring or an optionally substituted heterocyclic ring, Ring J' is a 7- or 8-membered heterocyclic ring having 3 or less hetero atoms, as atoms constituting a ring, and Ring J' may further have a substituent in addition to R_1 , R_2 , R_3 and X' .

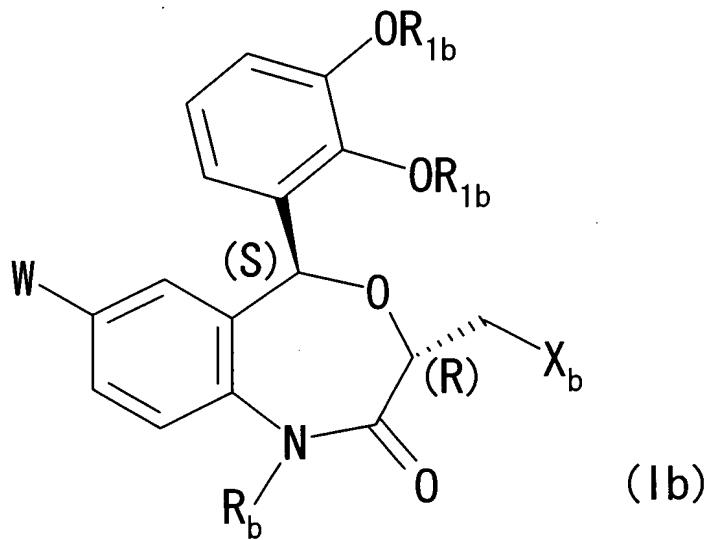
7. The agent according to claim 1, wherein the compound having inhibitory activity against squalene synthase is a compound represented by the formula:



wherein R_1 is a hydrogen atom or an optionally substituted hydrocarbon group, R_2 and R_3 are the same or different and a

hydrogen atom, an optionally substituted hydrocarbon group or an optionally substituted heterocyclic group, X_1 is a bond or divalent atomic chain, Y is an optionally esterified carboxyl group, an optionally substituted carbamoyl group, an optionally substituted hydroxy group, an optionally substituted amino group or an optionally substituted heterocyclic residue having a hydrogen atom which can be deprotonated, and Ring B is an optionally substituted benzene ring.

8. The agent according to claim 1, wherein the compound having inhibitory activity against squalene synthase is a compound represented by the formula:



wherein R_b is a lower alkyl group optionally substituted with an optionally substituted hydroxy group, X_b is an optionally substituted carbamoyl group or an optionally substituted heterocyclic group having a hydrogen atom which

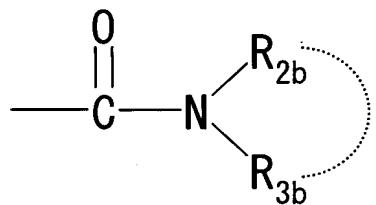
can be deprotonated, R_{1b} is a lower alkyl group and W is a halogen atom.

9. The agent according to claim 8, wherein R_b is C_{1-6} alkyl which may have 1 to 3 substituents selected from a hydroxy group, acetyloxy, propionyloxy, *t*-butoxycarbonyloxy, palmitoyloxy, dimethylaminoacetyloxy and 2-aminopropionyloxy.

10. The agent according to claim 8, wherein R_{1b} is methyl.

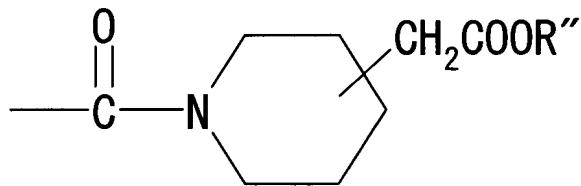
11. The agent according to claim 8, wherein W is a chlorine atom.

12. The agent according to claim 8, wherein X_b is a group represented by the formula:



15 wherein R_{2b} and R_{3b} are each a hydrogen atom, an optionally substituted hydrocarbon group, an optionally substituted heterocyclic group or an acyl group, or R_{2b} and R_{3b} may form, together with the adjacent nitrogen atom, an optionally substituted 5- or 6-membered nitrogen-containing heterocyclic ring which may contain 1 to 3 hetero atoms selected from a nitrogen atom, a sulfur atom and an oxygen atom, as atoms constituting a ring.

13. The agent according to claim 8, wherein X_b is a group represented by the formula:



wherein R'' is a hydrogen atom or C_{1-4} alkyl.

5 14. The agent according to claim 1, wherein the compound having inhibitory activity against squalene synthase is $N-[(3R,5S)-1-(3\text{-acetoxy-}2,2\text{-dimethylpropyl})-7\text{-chloro-}5\text{-(2,3\text{-dimethoxyphenyl})-2-oxo-}1,2,3,5\text{-tetrahydro-}4,1\text{-benzoxazepin-3-yl}]\text{acetyl}piperidine-4\text{-acetic acid}$ or $N-[(3R,5S)-7\text{-chloro-}5\text{-(2,3\text{-dimethoxyphenyl})-1-(3\text{-hydroxy-}2,2\text{-dimethylpropyl})-2-oxo-}1,2,3,5\text{-tetrahydro-}4,1\text{-benzoxazepin-3-yl}]\text{acetyl}piperidine-4\text{-acetic acid}.$

10 15. A skeletal muscle protecting agent comprising a compound having an action of suppressing the decrease of a geranylgeranylated metabolite in a muscular cell, or a salt thereof, or a prodrug thereof.

15 16. A method for protecting skeletal muscle, comprising administering an effective amount of a compound having inhibitory activity against squalene synthase, or a salt thereof, or a prodrug thereof to a mammal.

20 17. A method for protecting skeletal muscle, comprising administering an effective amount of a compound

having an action of suppressing the decrease of a geranylgeranylated metabolite in a muscular cell, or a salt thereof, or a prodrug thereof to a mammal.

18. Use of a compound having inhibitory activity
5 against squalene synthase, or a salt thereof, or a prodrug thereof for manufacturing a skeletal muscle protecting agent.

19. Use of a compound having an action of suppressing
10 the decrease of a geranylgeranylated metabolite in a muscular cell, or a salt thereof, or a prodrug thereof for manufacturing a skeletal muscle protecting agent.